

| Notice of Allowability | Application No. | Applicant(s) | |
|-------------------------------|------------------------|---------------------|--|
| | 09/345,195 | JURION ET AL. | |
| | Examiner | Art Unit | |
| | Rachna Singh | 2176 | |

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address--*

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. This communication is responsive to 7/12/04.
2. The allowed claim(s) is/are 3-5,7-18 and 23-32.
3. The drawings filed on _____ are accepted by the Examiner.
4. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All
 - b) Some*
 - c) None
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date _____.
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. Notice of References Cited (PTO-892)
2. Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. Notice of Informal Patent Application (PTO-152)
6. Interview Summary (PTO-413),
Paper No./Mail Date _____
7. Examiner's Amendment/Comment
8. Examiner's Statement of Reasons for Allowance
9. Other _____.

DETAILED ACTION

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
2. Authorization for this examiner's amendment was given in a telephone interview with Michael J. Baldauff on 11/08/04.
3. The application has been amended as follows:

Claim 3 (currently amended) A method of checking a sequence of input characters, wherein the sequence of input characters forms a complex character according to one or more rules of a selected language, comprising the steps of:

receiving a first character of a complex character;

determining whether the first character ~~may begin~~ begins a valid sequence of characters for forming a complex character according to the rules associated with the selected language;

if the first character ~~may begin~~ begins a valid sequence of characters for forming a complex character according to rules associated with the selected language, accepting the first character for display;

if the first character ~~may~~ does not begin a valid sequence of characters for forming a complex character according to rules associated with the selected language, prohibiting accepting the first character for display;

if the first character is accepted for display, displaying the character to a user on a display screen prior to receiving any additional characters;

receiving a second character;

determining whether the second character ~~may~~ can be appended to the first character according to rules associated with forming a complex character of the selected language, comprising the steps of

in a state transition table, assigning a first state to the first character according to the rules associated with the selected language,

assigning a second state to the second character according to the rules associated with the selected language,

determining whether the state transition table includes a state transition from the first state to the second state,

if the state transition table includes a state transition from the first state to the second state, determining the second character ~~may~~ can be appended to the first character according to the rules associated with forming a complex character of the selected language, and

if the state transition table does not include a state transition from the first state to the second state, determining the second character ~~may not~~ cannot be appended to the first character according to the rules associated with forming a complex character of the selected language;

if the second character ~~may~~ can be appended to the first character according to the rules associated with forming a complex character of the selected language,

appending the second character to the first character to form a correctly configured sequence of characters according to the rules associated with the selected language and displaying the complex character formed by the correctly configured sequence of characters on a display screen for viewing by a user prior to receiving any additional characters; and

if the second character ~~may not~~ cannot be appended to the first character according to the rules associated with forming a complex character of the selected language, prohibiting appending the second character to the first character.

Claim 4 (currently amended) The method of Claim 3, further comprising the steps of:

determining whether appending the second character to the first character creates a complete sequence of characters to form a complex character according to the rules associated with the selected language;

if the sequence of characters is a complete sequence of characters forming a complex character according to the rules associated with the selected language, determining whether a third input character ~~may begin~~ begins a second valid sequence of characters for forming a complex character according to rules associated with the selected language;

if the third character ~~may begin~~ begins a second valid sequence of characters for forming a complex character according to rules associated with the selected language, accepting the third character for display; and

if the third character may does not begin a second valid sequence of characters for forming a complex character according to rules associated with the selected language, prohibiting accepting the third character for display.

Claim 14 (Currently Amended) A computer-readable medium on which is stored a computer program for checking a sequence of input characters, wherein the sequence of input characters forms a complex character according to one or more rules of a selected language, the computer program comprising instructions, which when executed by a computer, perform the steps of:

receiving a character of a complex character;

determining whether the character may can be appended to a previous character to form a sequence of characters according to rules associated with forming a complex character of the selected language;

if the character may can be appended to the previous character according to the rules associated with forming a complex character of the selected language,

appending the character to the previous character to form a correctly configured sequence of characters according to the rules associated with the selected language;
and

displaying the complex character formed by the correctly configured sequence of characters on a display screen for viewing by a user prior to receiving any additional

characters indicating to the user that the correctly configured sequence of characters is at least a portion of a valid sequence of characters for forming a complex character according to rules associated with the selected language; and

if the character ~~may not~~ cannot be appended to the previous character according to the rules associated with forming a complex character of the selected language, prohibiting appending the character to the previous character.

Claim 16 (Currently Amended) A method of checking a sequence of input characters, wherein the sequence of input characters forms a complex character according to one or more rules of a selected language, comprising the steps of:

receiving an input character;

if the character is not associated with the selected language, displaying the character;

if the character is associated with the selected language, determining whether the character ~~may~~ can be displayed as a single character according to the rules of the selected language;

if the character ~~may not~~ cannot be displayed as a single character according to the rules of the selected language, determining whether the character ~~may~~ can be appended to one or more additional characters to form a valid sequence of characters for forming a complex character according to the rules of the selected language;

if the character ~~may not~~ cannot be appended to one or more additional characters to form a valid sequence of characters for forming a complex character, discarding the character; and

if the character ~~may~~ can be appended to one or more additional characters to form a valid sequence of characters for forming a complex character, displaying the complex character formed by appending the character to the one or more additional characters on a display screen for viewing by a user prior to receiving any additional characters indicating to the user that the character is at least a portion of a valid sequence of characters for forming a complex character according to rules associated with the selected language.

Claim 17 (Currently Amended) A method of establishing a sequence validation context of a sequence of characters forming at least a portion of a complex character, comprising the steps of:

 determining a maximum number of characters that ~~may comprise~~ comprises a valid sequence of characters according to the rules of a selected language;

 beginning with a last simple character of a sequence of characters, determining whether the last character is valid as a complete sequence of characters comprising a complex character,

 if the last character of the sequence of characters is valid as a complete sequence of characters comprising a complex character, then returning a context of the last character as a context for a complex character;

if the last character of a sequence of characters is not valid as a complete sequence of characters comprising a complex character, then determining whether a combination of the last character and a character input immediately to the left of the last character is valid as a complete sequence of characters comprising a complex character,

if the combination of the last character and the character input immediately to the left of the last character is valid as a complete sequence of characters comprising a complex character, then returning a context for the combination as the context for a complex character;

if the combination is not valid as a complete sequence of characters comprising the complex character, then determining whether the combination combined with a next character to the left of the combination is valid as a complete sequence of characters comprising a complex character, and if not, then creating subsequent combinations of characters by adding one character at a time to the left of the last subsequent combination until the maximum number of characters that ~~may comprise~~ comprises a valid sequence have been combined to form a sequence of characters that ~~may~~ can be checked for validity as a complete sequence of characters comprising a complex character; and

if one of the subsequent combinations of characters is valid as a complete sequence of characters comprising a complex character according to the rules of the selected language, then returning a context for the one subsequent combination as the context for a complex character.

Claim 18 (Currently Amended) A system for checking a sequence of input characters, wherein the sequence of input characters forms a complex character according to one or more rules of a selected language, comprising:

 a computer program module operative
 to receive a first character;
 to determine whether the first character may can be the first character of a sequence of characters for forming a complex character according to the rules associated with the selected language;
 to receive a second character;
 to determine whether the second character may can be appended sequentially to the first character according to the rules associated with forming a complex character according to rules associated with the selected language;
 to append the second character sequentially to the first character forming a correctly configured combination of characters if the second character may can be appended to the first character according to the rules associated with forming a complex character of the selected language;
 to prohibit appending the second character to the first character if the second character may not cannot be appended to the first character according to the rules associated with forming a complex character according to rules associated with the selected language; and
 to display to a user on a display screen the complex character formed by

appending the second character to the first character prior to receiving any additional characters indicating to the user that the correctly configured combination of characters is at least a portion of a valid sequence of characters for forming a complex character according to rules associated with the selected language.

Claim 25 (Currently Amended) The computer-readable medium of Claim 14, wherein the steps of prohibiting appending the character to the previous character comprises determining whether a character type and replace feature is on; if the character type and replace feature is on, using a state transition table to determine whether the character may can be used in the sequence of input characters; if the character may can be used in the sequence of input characters, inserting the character into the sequence of input characters; if the character may not cannot be used in the sequence of input characters, discarding the character.

Claim 28 (Currently Amended) The method of Claim 27, wherein the first character is displayed to a user on a display screen prior to receiving the second character indicating to the user that the first character may form forms part of a valid sequence of characters for forming a complex character according to rules associated with the selected language.

Claim 29 (Currently Amended) The method of Claim 27, wherein the complex character formed by the correctly configured combination of characters is displayed to a user on a display screen prior to receiving any additional characters indicating to the user that the correctly configured combination of characters ~~may form~~ forms part of a valid sequence of characters for forming a complex character according to rules associated with the selected language.

Claim 30 (Currently Amended) The method of Claim 27, further comprising the steps of:

- determining whether appending the second character to the first character creates a complete sequence of characters to form a complex character according to the rules associated with the selected language;
- if the sequence of characters is a complete sequence of characters forming a complex character according to the rules associated with the selected language, determining whether a third input character ~~may begin~~ begins a second valid sequence of characters for forming a complex character according to rules associated with the selected language;
- if the third character ~~may begin~~ begins a second valid sequence of characters for forming a complex character according to rules associated with the selected language, accepting the third character for display; and

if the third character ~~may~~ does not begin a second valid sequence of characters for forming a complex character according to rules associated with the selected language, prohibiting accepting the third character for display.

Claim 32 (Currently Amended) A method of checking a sequence of input characters, wherein the sequence of input characters forms a complex character according to one or more rules of a selected language, comprising the steps of:

receiving a first character of a complex character;

determining whether the first character ~~may begin~~ begins a valid sequence of characters for forming a complex character according to the rules associated with the selected language;

if the first character ~~may begin~~ begins a valid sequence of characters for forming a complex character according to rules associated with the selected language, accepting the first character for display;

if the first character ~~may~~ does not begin a valid sequence of characters for forming a complex character according to rules associated with the selected language, prohibiting accepting the first character for display;

if the first character is accepted for display, displaying the character to a user on a display screen prior to receiving any additional characters;

receiving a second character;

determining whether the second character may can be appended to the first character according to rules associated with forming a complex character of the selected language;

if the second character may can be appended to the first character according to the rules associated with forming a complex character of the selected language, appending the second character to the first character to form a correctly configured sequence of characters according to the rules associated with the selected language and displaying the complex character formed by the correctly configured sequence of characters on a display screen for viewing by a user prior to receiving any additional characters; and

if the second character may not cannot be appended to the first character according to the rules associated with forming a complex character of the selected language, prohibiting appending the second character to the first character.

Drawings

4. Corrected Drawings must be submitted. Clearer images of figures 3 and 4 are required.
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rachna Singh whose telephone number is 571-272-4099. The examiner can normally be reached on M-F (8:30-5).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on 571-272-4090. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RS
11/10/04



SANJIV SHAH
PRIMARY EXAMINER